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RESEARCH PAPER

A new species of *Hamataliwa* (Araneae: Oxyopidae) from Western Ghats, India

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Abstract

A new species of lynx spider genus *Hamataliwa* Keyserling is described from the Western Ghats, one of the world's biodiversity hotspots. Female of the new species is illustrated, and distribution has been mapped.

Keywords

Hamataliwa, lynx spider, new species, taxonomy, Western Ghats.

Introduction

Hamataliwa is a pantropical genus of lynx spiders and was established by Keyserling (1887) with the type species *H. grisea* Keyserling 1887. Till date, 83 species of *Hamataliwa* have been reported worldwide (World Spider Catalog 2021). The genus is poorly studied in India and known by six species (Caleb and Sankaran 2021). Recently Asalatha & Prasadan (2020) reported *H. pentagona* Tang & Li 2012 as a new record to India. Dhali et al. (2017) described a new species *H. hellia* and reported *H. incompta* (Thorell 1895) for the first time from India. All other Indian species of *Hamataliwa* viz. *H. ovata* (Biswas et al. 1996), *H. reticulata* (Biswas et al. 1996) and

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H. subhadrae (Tikader 1970) were transferred from *Oxyopes* Latreille 1804 by Sen et al (2011) and Tang and Li (2012).

Among India's lynx spider genera, *Hamataliwa* species are usually smaller than *Oxyopes* Latreille, *Hamadruas* Deeleman-Reinhold 2009 and *Peucetia* Thorell 1869. Epigynum of *Hamataliwa* possesses a posterior sclerotized rim and male palp with cymbial apophysis and tegular lobe. The black lines on clypeus and leg segments (especially in femora) are found in many *Oxyopes* species but absent in most *Hamataliwa* species (for more details see Deeleman-Reinhold 2009; Tang et al. 2012).

While studying the lynx spiders of Agasthyamalai Biosphere Reserve, a new species of *Hamataliwa* is identified. Female of the new species is described and illustrated here. The species was collected from three wildlife sanctuaries (viz. Shendurney Wildlife Sanctuary, Neyyar Wildlife Sanctuary and Peppara Wildlife Sanctuary) of Kerala under Agasthyamalai Biosphere Reserve of Southern Western Ghats.

Material and Methods

Spider specimens were examined under a Leica M205A stereozoom binocular microscope and images captured with a Leica DFC500 camera and processed using extended focus montage LAS software (version 3.8.0). The genitalia of females were cleared in 10% KOH. The measurements indicated in the text are in millimeter. Leg measurements are given as: total length (femur, patella + tibia, metatarsus, tarsus). The terminology used in the text mainly follows Deeleman-Reinhold (2009) and Tang and Li (2012). Abbreviations used: AL= abdomen length, ALE= anterior lateral eye, AME= anterior median eye, AW= abdomen width, CL= cephalothorax length, CW= cephalothorax width, PLE= posterior lateral eye, PME= posterior median eye, TL= total length; WGRC= Western Ghat Regional Centre, ZSI= Zoological Survey of India. The type specimens are deposited in the National Zoological Collections (NZC) of Zoological Survey of India, Western Ghat Regional Centre, Kozhikode, Kerala, India.

Result

Taxonomy

***Hamataliwa* Keyserling, 1887**

Type species: *Hamataliwa grisea* Keyserling, 1887

***Hamataliwa indica* sp. nov.**
(Figs 1–3)

Type materials: Holotype: • ♀, INDIA: Kerala, Kollam district, Agasthyamalai Biosphere Reserve, Shendurney Wildlife Sanctuary (08°42'28.17"N 77°07'42.46"E, 166m), 20.i.2019, Coll. P. M. Sureshan, ZSI/WGRC/I.R.INV.15459. **Paratypes:** • 1♀, INDIA: Kerala, Kollam district, Agasthyamalai Biosphere Reserve, Shendurney Wildlife Sanctuary (8°42'33"N 77°07'44"E, 152m), 20.i.2019, Coll. P. M. Sureshan, ZSI/WGRC/I.R.INV.15460; • 2♀, INDIA: Kerala, Thiruvananthapuram district, Agasthyamalai Biosphere Reserve, Neyyar Wildlife Sanctuary (08°32'02"N 77°09'02"E, 82m), 16.i.2019, Coll. P. M. Sureshan, ZSI/WGRC/I.R.INV.15461 & 15462, • 2♀, INDIA: Kerala, Thiruvananthapuram district, Agasthyamalai Biosphere Reserve, Peppara Wildlife Sanctuary (8°37'24.29"N 77°8'8.45"E, 126m), 23.i.2019, Coll. P. Girish Kumar, ZSI/WGRC/I.R.INV.15463&15464), • 1♀, INDIA: Kerala, Thiruvananthapuram district, Agasthyamalai Biosphere Reserve, Peppara Wildlife Sanctuary (8°37'12.11"N 77°8'5.03"E, 117m), 24.i.2019, Coll. P. Girish Kumar, ZSI/WGRC/I.R.INV.15465).

Diagnosis: The female of this species is similar to *Hamataliwa floreni* Deeleman-Reinhold 2009 but can be distinguished from the latter by the following combination of characters: atrium 'inverted mushroom' shaped, spermatheca distinctly separated and nearly bean shaped, copulatory ducts short, anteriorly broad and posteriorly narrow (Fig. 1C-E, Fig. 2), clypeus nearly straight, abdominal dorsum brown with two pair of sigilla and without any lines (Fig. 1A) (atrium pentagonal, spermathecae massive, somewhat elongate and almost touching, copulatory ducts short and thick, clypeus strongly slanting and abdominal dorsum whitish, flanked with some thin parallel red line and without any sigilla in case of *H. floreni*).

Description: Female (Holotype):
TL 7.90, CL 3.50, CW 2.62, AL 4.40, AW 3.0; cephalothorax (Fig. 1A) longer than wide, convex, anteriorly narrowed, cephalic region yellow and thoracic region grayish-yellow, longitudinal thoracic fovea distinct, cephalic region little elevated; clypeus yellow, with white hairs, height 0.42. Ocular area with white hairs; inter ocular distance: AME–AME 0.12, AME–ALE 0.14, PME–PME 0.36, PME–PLE 0.42, ALE–PLE 0.39, AME–PME 0.63, ALE–ALE 0.44, PLE–PLE 1.47. Chelicerae yellow

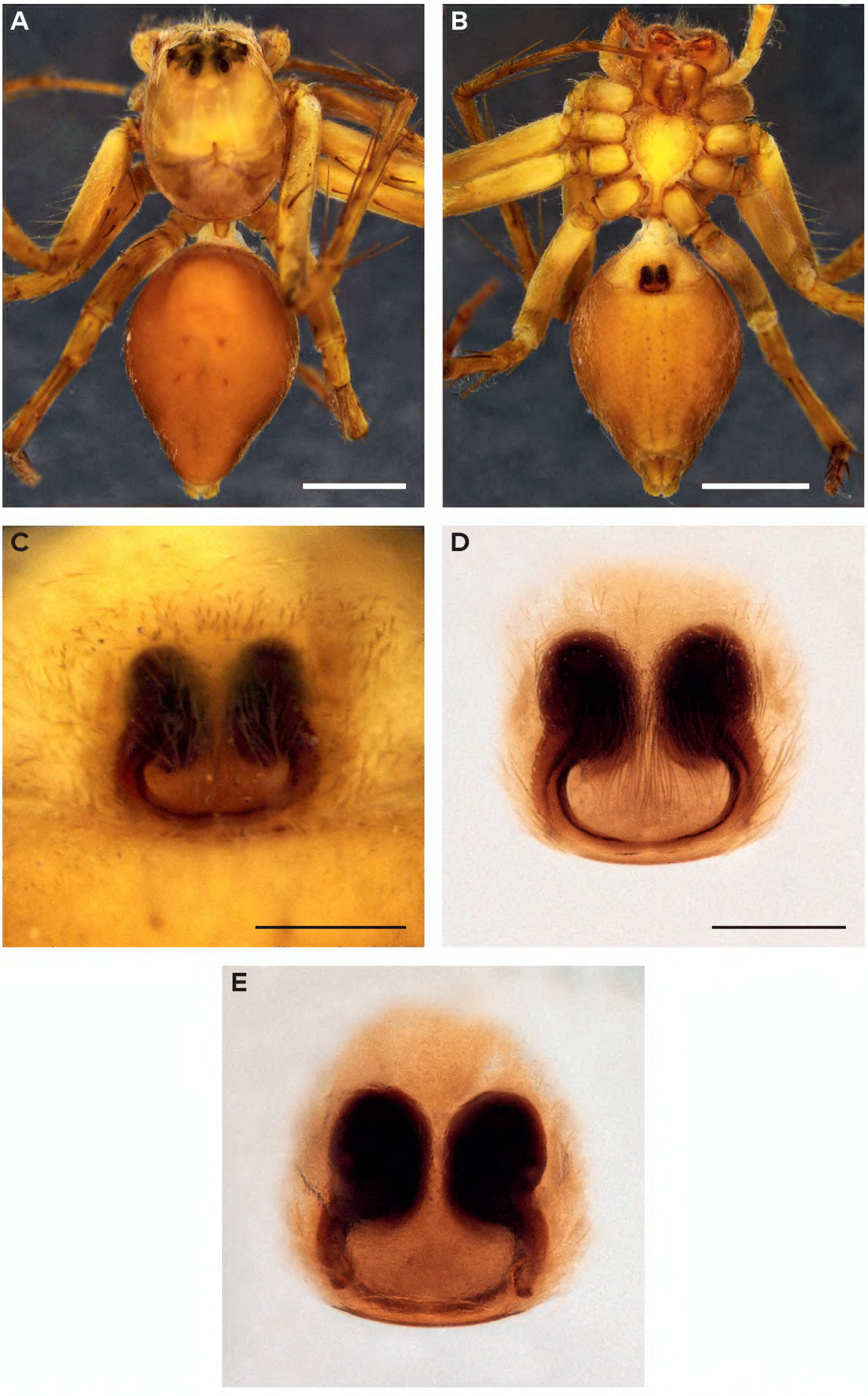

Figure 1. *Hamataliwa indica* sp. nov.: **A–B** Female habitus (**A**. dorsal, **B**. ventral); **C–D** Epigynum, ventral; **E** Vulva, dorsal. Scale bars: **A–B** - 2.0 mm, **C** - 0.5mm, **D–E** - 0.3mm.

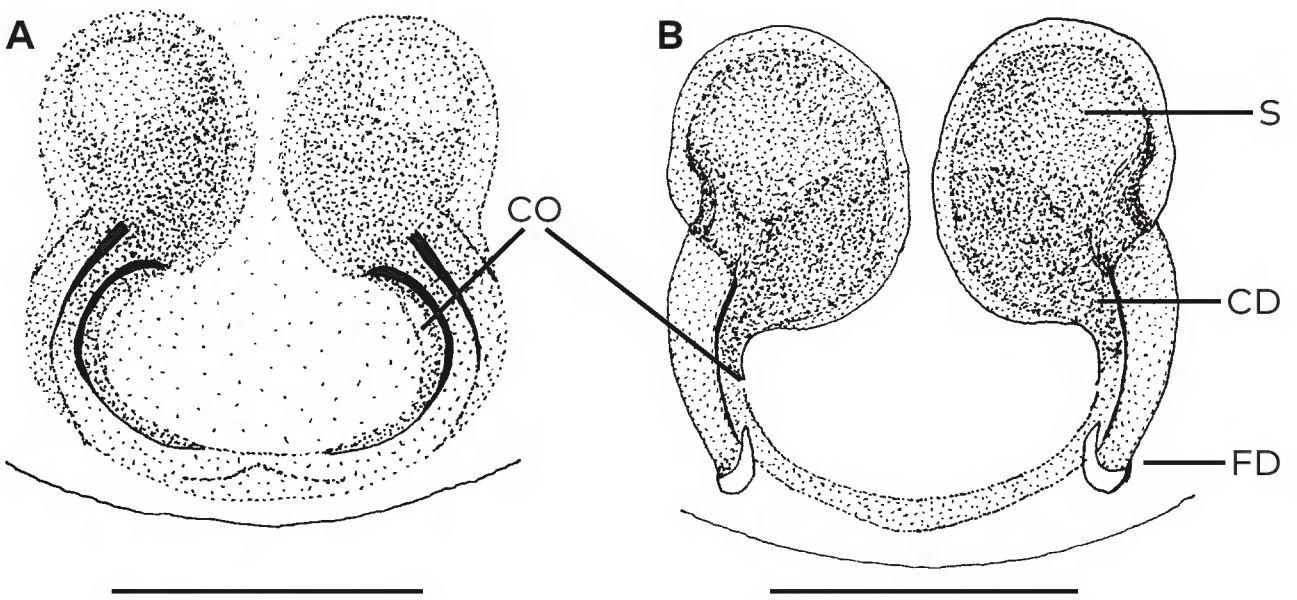

Figure 2. *Hamataliwa indica* sp. nov.: **A** Epigynum, ventral; **B** Vulva, dorsal. Scale bars: **A–B** - 0.3 mm. Abbreviations: CD=copulatory duct, CO=copulatory opening, FD=fertilization duct, S=spermatheca.

brown, promargin with two unequal teeth and retromargin with a tooth, fangs brown. Labium (Fig. 1B) yellow-brown, longer than wide, anterior margin concave; maxillae yellow-brown, longer than wide, medially incurved. Sternum yellow, nearly cordate, anterior margin straight, posteriorly narrowed and pointed. Legs yellowish-brown, with numerous spines; leg measurements: I 9.68 (3.20, 3.71, 1.83, 0.95); II 8.84 (2.85, 3.10, 1.67, 1.22); III 7.32 (1.98, 2.86, 1.75, 0.73); IV 6.95 (1.85, 2.73, 1.65, 0.72); leg

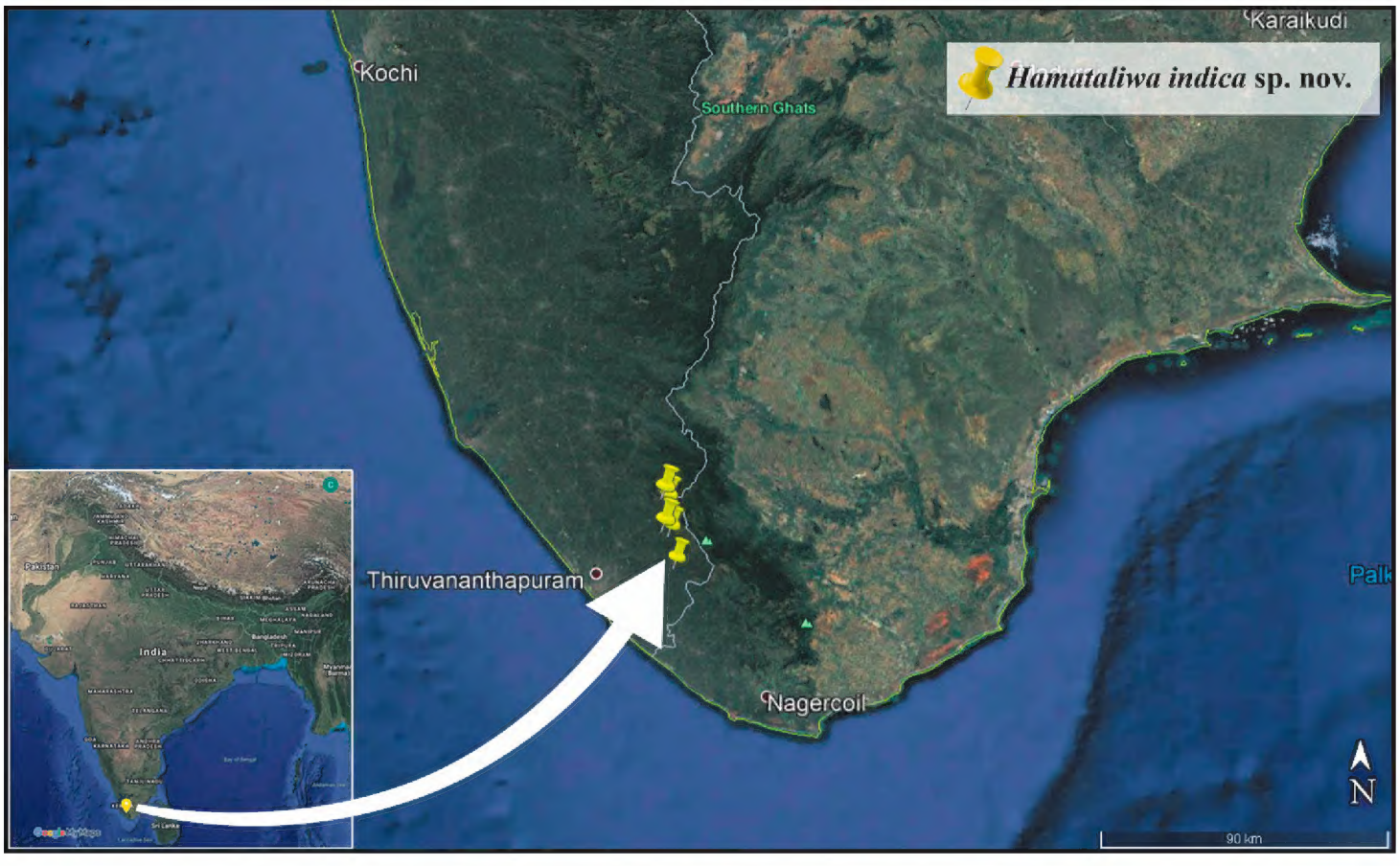

Figure 3. Type localities of *Hamataliwa indica* sp. nov. © Google.

formula 1234. Abdomen anteriorly broad and posteriorly narrowed, dorsum brown with 2 pairs of median sigilla (Fig. 1A); venter yellowish-brown with a pair of median dotted brown line (Fig 1B).

Epigynum & vulva (Fig. 1C-E, Fig. 2): Epigynum with distinct posterior sclerotized rim, atrium large, 'inverted mushroom' shaped; copulatory openings laterally placed, spermatheca large, nearly bean shaped, thicker than copulatory ducts, copulatory ducts short and broad anteriorly, fertilization ducts long, thick and inwardly curved.

Variation: Total length ♀: 6.45–7.90 (n=7).

Etymology: The species name is derived from the name of the country.

Distribution: India (Kerala).

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